

What is claimed is:

1. An input device comprising:

an image capture section which captures an image of a  
5 detection object;

an image comparison section which compares the image of  
the detection object captured by the image capture section with  
registered information;

a movement detection section which detects movement of the  
10 detection object by using the image of the detection object when  
it is determined that the registered information includes  
information corresponding to the image of the detection object  
according to a result of comparison by the image comparison  
section; and

15 a control information output section which outputs  
control information corresponding to a parameter type  
associated with the registered information corresponding to  
the image of the detection object based on a detection result  
of the movement detection section.

20

2. An input device comprising:

a registered information storage section which stores  
registered information corresponding to a parameter type;

an image capture section which captures an image of a  
25 detection object;

an image comparison section which compares the image of  
the detection object captured by the image capture section with

the registered information stored in the registered information storage section;

a movement detection section which detects movement of the detection object by using the image of the detection object when  
5 it is determined that the registered information storage section stores the registered information corresponding to the image of the detection object according to a result of comparison by the image comparison section; and

a control information output section which outputs  
10 control information corresponding to the parameter type associated with the registered information corresponding to the image of the detection object based on a detection result of the movement detection section.

15 3. The input device as defined in claim 1,  
wherein the registered information is a feature point of the image.

4. The input device as defined in claim 2,  
20 wherein the registered information is a feature point of the image.

5. The input device as defined in claim 3,  
wherein the feature point is extracted from the image of  
25 the detection object captured by the image capture section.

6. The input device as defined in claim 4,

wherein the feature point is extracted from the image of the detection object captured by the image capture section.

7. The input device as defined in claim 1,  
5 wherein the movement detection section detects the movement of the detection object by using the feature point of the image.

8. The input device as defined in claim 2,  
10 wherein the movement detection section detects the movement of the detection object by using the feature point of the image.

9. The input device as defined in claim 1,  
15 wherein the movement detection section detects the movement of the detection object by using a center of gravity of the image, and

wherein the center of gravity is calculated from the image of the detection object captured by the image capture section.  
20

10. The input device as defined in claim 2,  
wherein the movement detection section detects the movement of the detection object by using a center of gravity of the image, and

25 wherein the center of gravity is calculated from the image of the detection object captured by the image capture section.

11. The input device as defined in claim 1,  
wherein the image capture section includes a detection surface and captures the image of the detection being in contact with the detection surface, and

5        wherein the control information output section outputs the control information of at least one of first and second axis directions which intersect each other at right angles on the detection surface, a third axis direction perpendicular to the detection surface, and rotation directions around the first to  
10    third axes.

12. The input device as defined in claim 2,  
wherein the image capture section includes a detection surface and captures the image of the detection being in contact  
15    with the detection surface, and

       wherein the control information output section outputs the control information of at least one of first and second axis directions which intersect each other at right angles on the detection surface, a third axis direction perpendicular to the  
20    detection surface, and rotation directions around the first to third axes.

13. The input device as defined in claim 2, comprising:  
      a registration section which registers the registered  
25    information according to the parameter type.

14. The input device as defined in claim 1,

wherein the registered information includes a plurality of pieces of image information, the parameter type being associated with each piece of the image information.

5           15. The input device as defined in claim 2,  
          wherein the registered information includes a plurality of pieces of image information, the parameter type being associated with each piece of the image information.

10           16. The input device as defined in claim 1,  
          wherein the image of the detection object is a fingerprint image.

          17. The input device as defined in claim 2,  
15           wherein the image of the detection object is a fingerprint image.

          18. An information device comprising:  
          the input device as defined in claim 1; and  
20           a processing section which performs control processing based on the control information from the input device.

          19. An information device comprising:  
          the input device as defined in claim 2; and  
25           a processing section which performs control processing based on the control information from the input device.

20. A control information generation method for generating control information by using a captured image of a detection object, the control information generation method comprising:

5        searching information corresponding to an image of the detection object in registered information stored corresponding to a parameter type by using the image of the detection object;

10       detecting movement of the detection object by using the image of the detection object when it is determined that the information corresponding to the image of the detection object is included in the registered information and;

15       generating the control information corresponding to the parameter type associated with the registered information corresponding to the image of the detection object based on a detection result for the movement of the detection object.

21. The control information generation method as defined in claim 20, comprising:

20       generating the control information of at least one of first and second axis directions which intersect each other at right angles on the detection surface, a third axis direction perpendicular to the detection surface, and rotation directions around the first to third axes.

25

22. The control information generation method as defined in claim 20,

wherein the image of the detection object is a fingerprint image.

23. The control information generation method as defined  
5 in claim 21,

wherein the image of the detection object is a fingerprint image.